

MUSEUM OF NATURAL HISTORY
DEPARTMENT OF GEOLOGY AND GEOGRAPHY
REYKJAVÍK

MISCELLANEOUS PAPERS No. 21

ICELAND IN THE SAGA PERIOD
Some Geographical Aspects

BY
SIGURDUR THORARINSSON


LIBRARY
MUSEUM OF NATURAL HISTORY

Reprinted from

Þriðji Víkingafundur, Third Viking Congress
Árbók hins íslenska fornleifafélags, fylgirit 1958, pp. 13—24

POLAR
PAM
5993

POLARPAM



Digitized by the Internet Archive
in 2022 with funding from
University of Alberta Library

Iceland in the Saga Period

Some Geographical Aspects

By Sigurdur Thorarinsson.

The great civilization which flourished in Iceland in the days of the Old Icelandic Commonwealth has for a long time been a matter of speculation and investigation for both Icelandic and overseas scholars. How did it come about that a small nation in a barren and isolated country on the Arctic Circle succeeded in establishing and maintaining an independent civilized community and creating artistic treasures of which it has been said that they are as valuable to the culture of Europe as the music of Beethoven and the plays of Shakespeare?

I am not going to be so presumptuous as to attempt a solution of this riddle. As a geographer and geologist I just wish to touch on a few geographical and geological facts, which possibly might prove useful for the humanists, especially those from overseas, who are students of Icelandic, and in particular Old Icelandic civilization.

The geographical position of the country alone is enough to explain why people from the British Isles were the first Europeans to find the country and that the Scandinavians came next. Scotland is nearer to Iceland than any other European country, or at a distance of 431 nautical miles or 800 kilometers. Next comes Norway which is 524 nautical miles or 1000 km. from Iceland. But much nearer to Iceland than both these countries is the vast island of Greenland, the shortest distance between these two countries being only 155 nautical miles or 287 km. We have therefore a reason to ask why this country was never inhabited by Eskimos. Incidentally, it is commonly believed abroad that it has never been inhabited by others than Eskimos. It is known from archaeological finds that at one time Eskimo settlements were found widely on the East Greenland coast. And as a branch of the East Greenland Polar Current, which flows southward along that coast, is deflected towards the north coast of

LIBRARY
44877 BOREAL INSTITUTE

Iceland, it would seem quite possible, that Eskimos from East Greenland might drift to Iceland. But the Eskimo settlements to the east of the great inland ice do not seem to have been large or of long duration at any time, and we have only to state, that there have never been found any traces of Eskimo settlements in this country.

Iceland is therefore unique in being the only large inhabitable area on the globe where no primitive nation has ever lived, the only large area where the white man never came across any natives. I shall refer to this later, but let us now have a quick look at the country as it was at the beginning of the Norse settlement in the last decades of the 9th century. It is true that hermits of Celtic stock had lived here on and off for about a century as far as is known, and probably a good deal longer, but we can hardly speak of real settlements until Norse people, mixed to a greater or lesser extent with people of Celtic stock, began to flock to this country.

If we compare Iceland at the present time with Iceland of the 9th century we will soon see that great changes have taken place, some of which are of a kind which have no counterparts in neighbouring countries. As a concrete example to illustrate this point I may mention that in connection with Professor Einar Ólafur Sveinsson's great edition of *Njal's Saga* a map had to be prepared of the areas in which the saga mainly took place. As we have at our disposal excellent topographical maps of these areas as they are now this might appear an easy task, but quite the opposite is true. In these areas there have been extensive physical geographical changes. Where there were fertile settlements in the days of *Njal* there are now in some places glacial sandur-plains, in other pumice fields, and in still others extensive lava wastes. Breiðá, Kári Sölmundarson's farmstead, for instance, was covered by an advancing glacier in the beginning of the 18th century, and has emerged from under it again only recently. River-beds have entirely different locations from what they used to have, and the coast has undergone radical changes too. There have in fact been greater physical geographical changes in this country than in almost any other area in the world during the last thousand years. But although these changes, which have been caused mainly by the tempestuous forces of nature, are important, they must not be overestimated. Other modifications, though slower, have had greater consequences, and as environment of man Iceland is now to a great extent nearly the same as it was a thousand years ago.

Let us consider the most important factor in that environment,

the climate. Although the climate has been subject to considerable modifications to which I will refer in a moment the fact remains that when Iceland was colonized the climate was, as it still is, the very limit of what white civilized people can endure while maintaining — let us say — a Scandinavian cultural standard. Generally speaking the climate of the country is a cold temperate oceanic climate, but the southern border of the arctic drift-ice between Iceland and Jan Mayen sometimes moves southwards as to block the North and North-East coasts of Iceland for many months, in exceptional cases the whole summer. During severe drift-ice years, which were frequent in the period 1550—1890 but have not occurred during the last 38 years, the climate changes from cold temperate oceanic into a more continental arctic climate. We know with certainty that drift-ice years occurred during the Commonwealth time, although not as frequent as later on. Some parts of the interior of the country were probably then as now a subarctic tundra. The inhabited areas of Iceland were then as they are now what may be called a pioneer fringe, a border zone to barren or uninhabitable areas, and as such more sensible to the influence of man than countries with a greater climate safety marginal.

Two consequences of the Icelandic climate, more than anything else, make the country as environment of man different from the countries from which the immigrants came. One is that grain-growing could never become a major occupation for Icelandic farmers. Many of the immigrants came from districts where grain-growing was basic to the farming industry. Their first work when they came here was to plough the land and sow grain, sometimes after having cleared the birch forests by fire as they used to do in their homelands. Pollenanalytical studies indicate that they tried to grow oats, but soon they found out that it was impossible. Experience soon taught them that barley was the only type of grain, which could be grown here, and it gradually appeared that it could not even be depended upon except in the South and South-West. Already before the date of our first historical records attempts at growing grain had been mostly or completely abandoned in the North and North-East of Iceland. In the South and South-West grain-growing gradually decreased, but did not cease altogether until after the middle of the 16th century. It is possible to produce weighty arguments for the view that this was partly due to deteriorating climate.

But however it may have been it can be stated as a fact that

grain-growing never made a significant contribution to the material welfare of Icelandic farmers who from the first have depended on raising sheep and cattle as well as on salt and fresh water fishing and hunting. And I want to stress the fact that the breeding of the live stock in Iceland was from the very first beginning based mainly on grazing and not on cultivation.

There was thus from the beginning a basic difference between Icelandic farming and farming in Scandinavian countries and on the British Isles where grain-growing was a basic industry, a difference which exerted a profound influence on Icelandic civilization. The farmer's attachment to his farmstead depends first and foremost on agriculture and the cultivation of the soil. With cultivation goes stability and immobility, but Icelandic farming has always had a touch of nomadism. I myself am a farmer's son, brought up in an out-of-the-way district where farming methods in my youth were similar to those which had been employed there for a thousand years. I have travelled a good deal amongst Scandinavian farmers, and I have also got to know the Laps in the North of Sweden, and their ways of living and thinking reminded me more of the environment in which I grew up than did those of the tillers of the soil farther south. It was not without a reason that a scholar who had studied the ways of living and thinking of the Bedouins and the Icelanders found many things in common. The Icelandic farmer has never been so closely attached to his farmstead as his Scandinavian counterpart. The movement of homes between districts and different parts of the country has been much commoner over here. It is significant that the role of the horse in Icelandic farming has been different from what it has been in Scandinavia, where it has been primarily a draught-horse, at least in the agricultural districts while in this country it has been used for riding and has been dearer to the heart of the Icelandic farmer than any other animal. Similarly the Icelandic farmer has usually cared more for his sheep than for his cows. The farmer Bjartur of Summerhouses in Laxness's famous novel *Independent People* is in that respect a typical example.

This mobility of Icelandic farmers no doubt played a part in maintaining the uniformity of the external civilization and spiritual culture of Icelandic farmers all over the country. It may well be that the Icelander's love of poetry and sagas, especially of the epic kind, may to some extent be traced to the nomadic element in Icelandic farm life.

Another important consequence of the Icelandic climate and of the isolation of the country is that since the Ice Age there have been no woods in this country other than birch woods. Even they have been rather low and stunted. First after Iceland was colonized these woods were very widespread. I see no reason to doubt Ari the Learned's word when he says that the country had been covered with woods between the mountains and the sea. But the greater part of the country must, however, have been without forests right from the days of the settlement. The altitude of the forest limit can hardly have exceeded 300 meters above sea level but two thirds of the country are higher than that. Extensive areas on the lowlands, e. g. marshes and glacial sandur-plains, must also have been bare.

The Icelanders of today, possibly apart from geologists, look upon forests as a great blessing much to be desired, and the same view is no doubt held by our Scandinavian neighbours, who now receive a substantial part of their national income from wood products. But let us not forget that down to the 19th century woods like the coniferous forests of Scandinavia were from the point of view of farmers a kind of barrier or the greatest obstacle there was in the way of cultivation, and the principal agent in isolating settlements from one another. In this country forests never isolated or hindered communication between districts. It may appear a strange point of view, but I submit that in spite of lavas, glacial rivers and sandur-plains, communication between settlements and districts in Iceland has in ancient time in general been easier than between inland districts in Norway, Sweden and Finland. I may also mention that communication between the North and the South of Iceland across the central highlands was easier in the first centuries of the Icelandic settlement than later on because the highlands were then much richer in vegetation and the settlements cut deeper into the country both in the North and in the South. It is indicative of the frequent journeys across the central highlands in the first centuries of the country's history that in *Víglúms Saga* three married women in *Eyjafjörður* in the North are said to have come from *Þjórsárdalur* in the South. It is rather unlikely that this could happen nowadays in spite of the presence of motor vehicles and airoplanes. The explanation must be that people in *Eyjafjörður* frequently made their way to the South via *Sprengisandur* and down along the western banks of the *Þjórsá*, and stayed overnight in *Þjórsárdalur* when

they came down from the highlands or before they set off across them on their way home.

The comparatively easy communications between settlements and different parts of the country encouraged the frequent migration and constant movement of the people, which I have already mentioned and to which it was partly due that no separate cultural areas and no real dialects arose. The long travels to the fishing stations also played a role in this connection.

It is a matter of common knowledge that there are few visible remains in this country from the time of the Old Icelandic Commonwealth. No palace walls or church ruins are here to remind us of ancient glory. No remains of buildings have been preserved apart from the ruins of farmhouses, which have been covered by volcanic ashes, pumice and lava.

The reason for this is primarily that hardly any other civilized country has had to face such a shortage of building materials as Iceland. It is the irony of fate that a country about which the English poet W. H. Auden said with some justice that there were "only three kinds of scenery: stones, more stones, and all stones," should be so short of rocks suitable for construction purposes that even gravestones have to be imported. We know that in ancient times the Icelanders imported whetstones and that they also imported soapstone ("*kléberg*") in order to make such things as small pots, spindle whorls and primitive lamps. The most common types of volcanic rocks in Iceland, basalt and rhyolite, are difficult to use for building walls as they cannot be shaped according to one's needs. And the brown palagonite tuff, the most common rock in the young volcanic areas, is usually too soft to form suitable building stones.

The texture of the above mentioned rocks makes them also badly suitable for cutting and ornamental carving. This may be one of the reasons why there are so few runic inscriptions in Iceland, and the main reason why sculptural art never developed in this country.

The shortage of timber for building purposes was no less acute. The Icelandic birch could not be used in buildings of any size. Driftwood made up for this shortage to a certain extent in some areas, especially in the North and North-East, because the coasts of these parts of the country are washed by the above mentioned East Icelandic Polar Current, which is a branch of a current that crosses the Arctic Ocean from Siberia to Greenland and carries large quantities of coniferous wood of Siberian origin, whereas the Gulf Stream

that runs along the South and South-West coasts mainly carries drift-wood of Central American origin, such as mahogany. We may in particular assume that there were large quantities of drift-wood along the coasts when the first settlers came here as then it had been piling up for centuries. The great demand for the drift-wood can, for instance, be seen by the eagerness of the churches as time went on to gain possession of the coasts of the country. But the drift-wood was not sufficient to satisfy the requirements of the Icelanders for timber, and although for a long time the Icelanders were allowed to fell timber in Norway the importation of timber on the ships which were then available must have been very limited. The change in the design of Icelandic farmhouses from spacious long-houses to small passage houses after the end of the commonwealth era was no doubt caused chiefly by a shortage of timber, and maybe partly by deteriorating climate. Besides it was fatal for the independence of the country that the people could not renew their ships and ensure transportation to the country.

One thing is often overlooked when the cultural achievements of the Old Icelanders and the important place which they had amongst their kinsmen in Scandinavia are under discussion. It is the relative size of the Icelandic and the Scandinavian nations.

The Norwegian settlement of the country began between 870 and 880 A.D. and colonizing is regarded as having come to an end by 930. On the basis of *Landnámabók* (The Book of Settlements) scholars have endeavoured to figure out the size of the population with such diverse results as to vary between 20,000 and 60—70,000. The most likely estimate appears to be in the neighbourhood of 30,000 but is pure guesswork, however. Considerably safer although far from accurate are calculations made of the population about 1095, being founded on what Ari the Learned says in his *Íslendingabók* (The Book of the Icelanders) about bishop Gissur Ísleifsson having had a census taken of all farmers in the country except those who did not pay tax. According to that census the total was either 3800 or 4500, depending on the hundred being decimal or duodecimal. On this basis scholars have endeavoured to calculate the size of the population, arriving at figures that vary from 50,000 to 105,000. The average of the nine calculations I have studied is about 77,000, and the latest and most elaborate ones are in that vicinity. A census of tax-paying farmers in 1311 shows that the size of the population was probably about the same as in 1095.

From our own point of view 80,000 may not seem a large number for the size of a population, but everything is relative and it is of interest to make a comparison with other Scandinavian countries at that time. Scholars estimate that about 1100 the population of Norway was around 250,000, that of Sweden about 500,000. This means that the population of Iceland at that time was nearly one third of that of Norway and the density for the same area on the same scale as in Norway. This means also that the population of Iceland at that time was comparable in size with that of the other Scandinavian countries, as the ratio between Iceland and Norway was about the same as the present ratio between Norway and Denmark on the one hand and Sweden on the other. If we bear this in mind we begin to appreciate the place Iceland had among the Scandinavian countries in those times, why the Icelanders swaggered so much and ranted when overseas as our old sagas indicate. By no means did they feel that they were the representatives of a dwarfish state. Seen from this standpoint it becomes quite natural that the kings of Norway never attempted to conquer the country by force. While the Icelanders were singleminded on the defence of their independence it was simply — apart from the long distance — an impracticable proposition for any Norwegian king to fit out a fleet large enough to take the country by force. If the increase in the size of the Icelandic population had kept pace with that of the other Scandinavian countries the Icelanders would now number over a million. But the development of things was different in this country. In 1800 the population of Norway was as high as 883,000, and had more than tripled since the year 1100, but by that time the population of Iceland had been reduced to 47000 or to little more than one half of what it was in 1100. The reasons for this backward trend were manifold, but first and foremost there was a ceaseless struggle, a constant fight with the elements, with fire, ice and inclement weather.

I stated at the beginning of my lecture that Iceland lay on the outer fringe of what is inhabitable for a civilized community. Our ancestors soon found out that this was a country of ice and fire. Even if there were no authorities for this view other than place names, we would be justified in drawing that conclusion. The many place names beginning with *kald* (i. e. cold), e.g. names like *Kaldbakur*, *Kaldidalur*, *Kaldakinn*, are indicative of the disappointment of people who came from countries with warmer climate, a disap-

pointment expressed in the distich, "*Kröpp eru kaup, ef hreppik Kaldbak, en ek læt akra*" (i.e. Bad is the exchange if I receive Kaldbakur in return for corn fields)." And the innumerable names reflecting the fire under ground, names which begin with *varm-*, *reyk-*, *laug-*, *eld-* (i.e. warm, smoke, hot spring, fire) illustrate the wonder which the subterranean heat caused amongst the immigrants. There is hardly anywhere a trace of thermal springs near inhabited areas without their giving a rise to a place name. However, when the Icelandic volcanoes began to show their true character it probably was the subject of even greater astonishment for the people who had grown up in the vicinity of the mountains of Norway and Britain, which consist of ancient rocks. They had built their homes close to the Icelandic mountains just as they would have done at home, and their first experience of the true nature of these mountains was frequently bought at high prices. It is not unlikely that the influence of such freaks of nature is to be detected in the description of Ragnarök in *Völuspá*. And are we not justified in assuming that the struggle with the elemental forces of nature has had its share in fostering the fatalism which permeates all Old Icelandic literature?

If we compare the Iceland of the Commonwealth period and Iceland as *we* know it we must not forget, that during the first centuries of the country's history it was in fact a better land for farming than it became later. That the climate was much better then than nowadays, as some scholars have maintained, is a mistaken view, however. That it was similar to what it has been during the last few decades would come nearer to the truth, but then we must also bear in mind that during the last few decades the climate has been much better than it was from the middle of the 16th century down to about 1890, i.e. during the period when the prestige of the nation fell to its lowest level. The history of drift-ice and glacial changes proves this. The reason why it is not possible to find in Iceland arguments for the assertion we have so often heard that the climate *suddenly* deteriorated around the year 1300 is probably that there was a slow climatic change which began in the 13th century, accelerated during the late 16th century and culminated in the 17th to the 19th centuries.

But in addition to these climatic changes there was the deterioration of the land caused by man. I would remind you again of the fact that when Iceland was colonized it was the only large inhabited area on the globe which had never been inhabited by man in post-glacial time. And what is even more striking, no herbivorous mammal

had settled in this country with the possible exception of one species of mouse during the ten thousand years which had passed since the ice retreated. It therefore had far-reaching effects on the vegetation of this country when man made his inroad with herbivorous livestock, sheep, goats, cows and horses.

In Iceland a continuous fight goes on between soil building and soil erosion processes. The greater part of the interior is bare moraine and sands where the weathering process is very rapid both on account of the nature of the rock and the frequent alternations of frost and thaw. The glaciers grind their bedrocks and annually carry vast masses of gravel, sand and clay down to the sandur-plains. These plains and the bare areas in the interior are the principal sources of the large quantities of sand and dust which the wind then carries further along. Some of this material is carried out into the sea; other remains, especially on low-lying ground, where the vegetation absorbs it. For that reason the soil soon increases very rapidly in thickness. For example it may be mentioned that the soil cover in the South of Iceland has thickened about 10 cm or 4 inches on the average since the eruption of Mt. Katla in 1918. As long as the country was uninhabited there was more or less an equilibrium between the soil building and soil erosion processes. But the advent of man with his livestock soon upset that equilibrium. Through sheep and goat grazing, wood cutting and forest fires the most effective protector of the soil, the birch forest, was gradually destroyed. Of all the birch woods that in the time of the settlement covered the greater part of the lowlands and mountain slopes, only about 1000 sq. km. remain. The consequence was soil erosion in many places on such catastrophic scale as to lay waste whole districts. According to the farm register of 1703 farmsteads at that time numbered 4059, while the number of abandoned farms is given as about 3200.

But this soil erosion has taken place gradually and the process has been accelerated as time passed. Thus it was relatively little in evidence during the earliest centuries and the birch woods were then sufficiently extensive to affect the local climate to such an extent that even if the temperature was the same the conditions for growing grain were more favourable than they are now.

There are also various indications that during the period of the settlement and the first subsequent centuries catastrophic volcanic eruptions were rarer than later on.

Thus various paths lead us to the conclusion that the relative

populace that seems to have prevailed in Iceland during the earliest centuries of the country's history and the relatively high density of the rural population was substantially due to more favourable conditions then than later on, and that the subsequent decline is partly to be accounted for by a more unequal fight with the elemental forces of nature, greater frequency of drift-ice, a colder climate, greater volcanic activity and increasing soil erosion.

But when looking for a reason for this decline we must also take into consideration the fact that with some exaggeration we may say that the Icelanders have never learnt to adapt themselves to the conditions of their country. The immigrants came from countries with totally different natural conditions, countries which had been inhabited for thousands of years, so that in their ways of life they had adapted themselves to existing conditions.

On the whole it may be said that where white people have settled they have found more primitive peoples who had adapted themselves to their environment and from whom the newcomers have been able to learn many things. In this country there were no natives to learn from. Admittedly it is questionable how willing our forefathers would have been to learn from such natives. The Greenland episode does not suggest much inclination thereto. There is not much difference between the natural conditions of the East and West Settlements in Greenland and some Icelandic settlements, for instance in the North-West Peninsula, but how much better did not the Eskimos adapt themselves to the natural conditions of their own country as far as mode of living, dress etc. were concerned than did the Icelanders! This lack of adaptation proved fatal for the Icelandic settlers in Greenland and almost fatal for the Icelanders in their own country. The Icelanders never learned to clothe themselves effectively against cold and rainy weather. Their shoes were inferior to those of any other nation inhabiting a cold country. In times of starvation they did not even learn to eat several of the edible things found in the country and their fishing tackle was not anything to boast of. Of course we can point out various examples of adaptation, both to the conditions of the country in general and to the local conditions of certain districts, for instance in the building of houses. In the parts of West-Skaftafellssýsla where there was abundance of shore lyme grass straw-thatched houses were built. In the rainy district of Öraefi, where flat stones are in good supply, the house roofs were covered with these stones so as to keep off the rain, in the North-

West Peninsula where there was plenty of drift-wood a kind of log houses were built, etc. But the fact remains that generally speaking the technical civilization of this country was never truly national in the sense that it was ever fully adapted to the Icelandic environment.

But at the same time the remarkable thing happens that the intellectual development of the country was moulded by its environment in such a way that its products have in spite of distinct foreign influence individuality and traits which are wholly national in character. Achievements in the intellectual sphere, not technical civilization, was the mainstay of the culture which came to justify the existence of a separate nation in this singular country.

I will now draw these disconnected meditations to a close. I have, as I mentioned at the beginning of my lecture, endeavoured as a geographer and a geologist to draw your attention to some facts which I think are relevant to the study of Icelandic civilization, its beginnings and development. But I am well aware that the existence of great literature like our best sagas and other artistic treasures which were created here will only to a small extent be explained by drawing attention to some of the aspects of the environment, in which these works of art were created. To explain it thoroughly we would have to know also the minds of the anonymous artists who created these masterpieces, and even that would not explain everything. In all inspired artistic creation, whether in the field of literature or other arts, there is a touch of miracle. When speaking of the Old Icelandic literature one might misquote Keats by saying that *a thing of genius is a riddle forever*, and certainly this literature *"will never pass into nothingness."*

Date Due

OCT 12 '86

44877

Pam:
(*35)
THO - 2

THORARISNSSON, Sigurdur

AUTHOR Iceland in the saga period:
some geographical aspects.

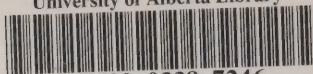
TITLE

DATE LOANED	BORROWER'S NAME	DATE DUE
*	Cynthia Zutter	OCT 12 '86
RETURN	OCT 15 '86	

44877

BOREAL INSTITUTE FOR NORTHERN STUDIES, LIBRARY
THE UNIVERSITY OF ALBERTA
EDMONTON, ALBERTA T6G 2E9
CANADA

University of Alberta Library



0 1620 0338 7246